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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A method of radio resource management comprising the steps of:

determining periodically a network cost for current network blocking rates for data and voice traffic based on predetermined target blocking rates, and

adjusting a partition of voice and data traffic to minimize the network cost.

2. (cancelled)

3. (original) A method as claimed in claim 1 wherein the adjusting step adjusts the partition of voice and data traffic iteratively.

4. (previously presented) A method as claimed in claim 1 wherein the network cost is determined as:

$$Cost = W_v \times [f_v(T_v, T_d) - P_{bv}^*]^P + W_d \times [f_d(T_v, T_d) - P_{bd}^*]^P$$

where:

- T_v and T_d are maximum fractions of resource partitioning values for voice and data, respectively;

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- W_v and W_d are positive constants representing the relative weighing of voice vs. data;
- $f_v(T_v, T_d)$ and $f_d(T_v, T_d)$ are the current estimated blocking rates for voice and data traffic, respectively;
- P_{bv}^* and P_{bd}^* are the target blocking rate for voice and data respectively;
- P is a positive number; and
- the function $[x]$ is equal to x for positive x and is equal to 0 for non-positive x .

5. (original) A method as claimed in claim 4 further comprising the step of updating the partition of voice and data based on the value of the network cost.

6. -10 (cancelled)

11. (currently amended) A method as claimed in claim 10 further comprising of radio resource arrangement comprising the steps of:

receiving a request for a data burst to be transmitted;

determining power requirement for the data burst at a plurality of possible transmission rates;

assigning a highest priority to the data burst requests serviceable at a maximum transmission rate with a minimum power requirement;

storing data burst requests in queues based on priority levels; and

transmitting the data burst having a maximum transmission rate and a minimum power requirement;

wherein the data burst is chosen based on a comparative decision amongst currently contending data burst users.

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12. (previously presented) A method of radio resource management comprising the steps of:

assigning a maximum burst rate and a corresponding minimum burst duration to a user in a wireless network with a plurality of data users;

equalizing a rate of transmitted information by adaptively allocating the user a second burst duration with a corresponding second burst rate, the second burst rate being lower than the maximum burst rate, so that the product of the second burst rate and the second burst duration is equal to the product of the maximum burst rate and the corresponding minimum burst.

13. (cancelled)

14. (previously presented) A method of radio resource management comprising the steps of:

measuring an existing interference for an active user in a wireless network with a plurality of users having a pool of burst rates; and

granting a highest possible burst rate for transmission from the pool of burst rates without adding significantly to the interference level.

15. (previously presented) A method as claimed in claim 14 wherein the interference is measured and reported to a controller.

16. (previously presented) A method as claimed in claim 14 further comprising the step of excluding high burst rates in the pool from transmission, when the interference is high.

17. (previously presented) A method as claimed in claim 14 further comprising the step of expanding the pool of burst rate size to include high burst rates for transmission, when the interference is low.

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18. (previously presented) A method of radio resource management comprising the steps of:

computing an ordered list of available transmission rates for an active user in a wireless network with a plurality of users;

receiving a request for a transmission of a data burst from the user;

obtaining a quality of service requirement for the transmission of the data burst;

acquiring a buffer status for the transmission of the data burst;

selecting a lowest rate from the ordered list;

calculating a required time for the transmission of the data burst using the lowest rate; and

transmitting the data burst

whereby the required time is below an allowed maximum burst duration.

19. (previously presented) A method as claimed in claim 18 further comprising the steps of:

selecting a next lowest rate from the ordered list; and

calculating a next required time for the transmission of the data burst using the next lowest rate;

whereby the required time is above and the next required time is below the allowed maximum burst duration.

20. (cancelled)

21. -26. (withdrawn)
